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17 Attorneys for Defendants

18 HAMAMATSU CORPORATION,

HAMAMATSU PHOTONICS K.K., and

19 PHOTONICS MANAGEMENT CORP.

20 **UNITED STATES DISTRICT COURT**
21 **NORTHERN DISTRICT OF CALIFORNIA**

22 SEMICAPS PTE LTD.,

23 Plaintiff,

24 vs.

25 HAMAMATSU CORPORATION, et al.,

26 Defendants.

CASE NO. 17-cv-03440-DMR

**DEFENDANTS' ANSWER TO
PLAINTIFF'S COMPLAINT FOR
PATENT INFRINGEMENT**

JURY TRIAL DEMANDED

Judge: Honorable Donna M. Ryu

1 Defendants Hamamatsu Corporation, Hamamatsu Photonics K.K., and Photonics
2 Management Corp. (collectively, “Hamamatsu”), by their undersigned counsel, hereby answer the
3 Complaint filed by Plaintiff SEMICAPS Pte Ltd. (“Plaintiff”) on June 14, 2017. Hamamatsu
4 responds as follows:

5 Hamamatsu denies that it has infringed any valid and enforceable patent rights at issue in
6 this case. Hamamatsu further denies that any patent claims asserted against Hamamatsu in this
7 case are valid or enforceable. The responses below reflect the current status of Hamamatsu’s
8 knowledge and belief regarding the subject matter of the allegations to which they respond.
9 Hamamatsu reserves the right to supplement, modify, and/or amend its responses based on any
10 additional facts or developments that become available or that arise after the filing of this Answer.

11 Hamamatsu denies each and every allegation averred in the Complaint that is not expressly
12 admitted below. Any factual allegation admitted below is admitted as to only the specific
13 admitted facts, and not as to any purported conclusions, characterizations, implications, or
14 speculations that might follow from the admitted facts. Hamamatsu responds to the numbered
15 paragraphs of the Complaint as follows. The paragraph numbering in these responses corresponds
16 to the numbered paragraphs in the Complaint.

17 **INTRODUCTION¹**

18 1. Hamamatsu admits that the Complaint purports to state a cause of action for patent
19 infringement. To the extent an additional response is required, Hamamatsu denies the allegations
20 of paragraph 1 of the Complaint and expressly denies that it has infringed any valid claim of any
21 patent asserted in the Complaint.

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23
24
25
26 ¹ For ease of reference, Hamamatsu repeats the headings set forth in the Complaint. In doing so,
27 Hamamatsu makes no admissions regarding the substance of the headings or any other allegations
28 of the Complaint. Unless explicitly stated otherwise, to the extent that a particular heading can be
construed as an allegation, Hamamatsu specifically denies all such allegations.

THE PARTIES

2. Hamamatsu is currently without knowledge or information sufficient to form a belief as to the truth of the allegations and characterizations contained in Paragraph 2 of the Complaint, and therefore denies them.

3. Hamamatsu admits that Hamamatsu Photonics K.K. is a Japanese company and has its principal place of business at 325-6 Sunayama-cho, Naka-ku, Hamamatsu City, Shizuoka Pref., 430-8587, Japan. Hamamatsu Photonics K.K.'s headquarters is located at 1126-1, Ichino-cho, Higashi-ku, Hamamatsu City, Shizuoka Pref., 435-8558, Japan.

4. Hamamatsu admits that Hamamatsu Corporation is incorporated under the laws of New Jersey and has its principal place of business at 360 Foothill Road, Bridgewater, NJ 08807.

5. Hamamatsu admits that Photonics Management Corp. is incorporated under the laws of Delaware and has its principal place of business at 360 Foothill Road, Bridgewater, NJ 08807.

JURISDICTION AND VENUE

6. Hamamatsu repeats, re-alleges, and incorporates by reference its responses to the allegations of paragraphs 1-5 of the Complaint as if fully set forth herein. To the extent an additional response is required, Hamamatsu denies the allegations and characterizations contained in Paragraph 6 of the Complaint.

7. Hamamatsu admits that this Court has subject matter jurisdiction of patent infringement actions under 28 U.S.C. §§ 1331 and 1338(a), provided that standing and other requirements are met. Hamamatsu denies any remaining allegations and characterizations in Paragraph 7 of the Complaint.

8. Hamamatsu admits that it maintains a California office at 2875 Moorpark Ave., San Jose, CA 95128. Hamamatsu further admits that it previously had an office at 1700 Dell Avenue, Campbell, CA 95008. Hamamatsu denies any remaining allegations and characterizations in Paragraph 8 of the Complaint.

9. Paragraph 9 alleges legal conclusions to which no response is required. To the extent a response is required, Hamamatsu does not contest that this Court has personal jurisdiction

1 over it for purposes of this case. Defendants Hamamatsu Photonics K.K. and Hamamatsu
2 Corporation admit that they have conducted and do conduct business in the State of California.
3 Defendant Photonics Management Corporation denies that it is involved in the sales chain of the
4 products accused in the Complaint. Hamamatsu denies that it has committed any acts of
5 infringement within the Northern District of California or any other District.

6 10. Paragraph 10 alleges legal conclusions to which no response is required. To the
7 extent a response is required, Hamamatsu does not contest that venue is proper in this case in this
8 judicial district.

9 **THE PATENT-IN-SUIT**

10 11. Hamamatsu admits that U.S. Patent No. 7,623,982 (“’982 patent”) is titled “Method
11 of Testing an Electronic Circuit and Apparatus Thereof,” and was issued by the United States
12 Patent and Trademark Office on November 24, 2009. Hamamatsu acknowledges that Exhibit A to
13 the Complaint purports to be a true and correct copy of the ’982 patent. Hamamatsu denies the
14 remaining allegations and characterizations in Paragraph 11 of the Complaint.

15 **COUNT I: PATENT INFRINGEMENT OF THE ’982 PATENT**

16 12. Hamamatsu repeats, re-alleges, and incorporates by reference its responses to the
17 allegations of paragraphs 1-9 of the Complaint as if fully set forth herein. To the extent an
18 additional response is required, Hamamatsu denies the allegations and characterizations contained
19 in Paragraph 12 of the Complaint.

20 13. Hamamatsu denies the allegations and characterizations contained in Paragraph 13
21 of the Complaint.

22 14. Hamamatsu is currently without knowledge or information sufficient to form a
23 belief as to the truth of the allegations and characterizations contained in Paragraph 14 of the
24 Complaint, and therefore denies them.

25 15. Hamamatsu is currently without knowledge or information sufficient to form a
26 belief as to the truth of the allegations and characterizations contained in Paragraph 15 of the
27 Complaint, and therefore denies them.

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1 16. Hamamatsu is currently without knowledge or information sufficient to form a
2 belief as to the truth of the allegations and characterizations contained in Paragraph 16 of the
3 Complaint, and therefore denies them.

4 17. Hamamatsu is currently without knowledge or information sufficient to form a
5 belief as to the truth of the allegations and characterizations contained in Paragraph 17 of the
6 Complaint, and therefore denies them.

7 18. Hamamatsu denies the allegations and characterizations contained in Paragraph 18
8 of the Complaint.

9 19. Hamamatsu admits that claims 4-7 in the '982 patent depend from claim 1, and that
10 claim 1 of the '982 patent is accurately quoted in Paragraph 19 of the Complaint.

11 20. Hamamatsu denies the allegations and characterizations contained in Paragraph 20
12 of the Complaint.

13 21. Hamamatsu denies the allegations and characterizations contained in Paragraph 21
14 of the Complaint.

15 22. Hamamatsu denies the allegations and characterizations contained in Paragraph 22
16 of the Complaint.

17 23. Hamamatsu denies the allegations and characterizations contained in Paragraph 23
18 of the Complaint.

19 24. Hamamatsu denies the allegations and characterizations contained in Paragraph 24
20 of the Complaint.

21 25. Hamamatsu denies the allegations and characterizations contained in Paragraph 25
22 of the Complaint.

23 26. Hamamatsu denies the allegations and characterizations contained in Paragraph 26
24 of the Complaint.

25 27. Hamamatsu denies the allegations and characterizations contained in Paragraph 27
26 of the Complaint.

27 28. Hamamatsu admits that claim 5 in the '982 patent is accurately quoted in Paragraph
28 28 of the Complaint.

1 29. Hamamatsu denies the allegations and characterizations contained in Paragraph 29
2 of the Complaint.

3 30. Hamamatsu denies the allegations and characterizations contained in Paragraph 30
4 of the Complaint.

5 31. Hamamatsu admits that claim 6 in the '982 patent is accurately quote in Paragraph
6 31 of the Complaint.

7 32. Hamamatsu denies the allegations and characterizations contained in Paragraph 32
8 of the Complaint.

9 33. Hamamatsu denies the allegations and characterizations contained in Paragraph 33
10 of the Complaint.

11 34. Hamamatsu admits that claim 7 in the '982 patent is accurately quoted in Paragraph
12 34 of the Complaint.

13 35. Hamamatsu denies the allegations and characterizations contained in Paragraph 35
14 of the Complaint.

15 36. Hamamatsu denies the allegations and characterizations contained in Paragraph 36
16 of the Complaint.

17 37. Hamamatsu admits that claim 21 in the '982 patent is accurately quoted in
18 Paragraph 37 of the Complaint.

19 38. Hamamatsu denies the allegations and characterizations contained in Paragraph 38
20 of the Complaint.

21 39. Hamamatsu denies the allegations and characterizations contained in Paragraph 39
22 of the Complaint.

23 40. Hamamatsu denies the allegations and characterizations contained in Paragraph 40
24 of the Complaint.

25 41. Hamamatsu denies the allegations and characterizations contained in Paragraph 41
26 of the Complaint.

27 42. Hamamatsu denies the allegations and characterizations contained in Paragraph 42
28 of the Complaint.

1 43. Hamamatsu admits that claim 22 in the '982 patent is accurately quoted in
2 Paragraph 43 of the Complaint.

3 44. Hamamatsu denies the allegations and characterizations contained in Paragraph 44
4 of the Complaint.

5 45. Hamamatsu denies the allegations and characterizations contained in Paragraph 45
6 of the Complaint.

7 46. Hamamatsu admits that claim 23 in the '982 patent is accurately quoted in
8 Paragraph 46 of the Complaint.

9 47. Hamamatsu denies the allegations and characterizations contained in Paragraph 47
10 of the Complaint.

11 48. Hamamatsu denies the allegations and characterizations contained in Paragraph 48
12 of the Complaint.

13 49. Hamamatsu admits that claim 24 in the '982 patent is accurately quoted in
14 Paragraph 49 of the Complaint.

15 50. Hamamatsu denies the allegations and characterizations contained in Paragraph 50
16 of the Complaint.

17 51. Hamamatsu denies the allegations and characterizations contained in Paragraph 51
18 of the Complaint.

19 52. Hamamatsu admits that claim 25 in the '982 patent is accurately quoted in
20 Paragraph 52 of the Complaint.

21 53. Hamamatsu denies the allegations and characterizations contained in Paragraph 53
22 of the Complaint.

23 54. Hamamatsu denies the allegations and characterizations contained in Paragraph 54
24 of the Complaint.

25 55. Hamamatsu denies the allegations and characterizations contained in Paragraph 55
26 of the Complaint.

27 56. Hamamatsu denies the allegations and characterizations contained in Paragraph 56
28 of the Complaint.

1 57. Hamamatsu admits that it received a letter from Plaintiff dated June 3, 2014
2 regarding the '982 patent. Hamamatsu denies the remaining allegations and characterizations in
3 Paragraph 57 of the Complaint.

4 58. Hamamatsu denies the allegations and characterizations contained in Paragraph 58
5 of the Complaint.

6 59. Hamamatsu denies the allegations and characterizations contained in Paragraph 59
7 of the Complaint.

8 60. Hamamatsu denies the allegations and characterizations contained in Paragraph 60
9 of the Complaint.

10 **DEMAND FOR JURY TRIAL**

11 61. No response is required to Paragraph 61 of the Complaint.

12 **PRAYER FOR RELIEF**

13 To the extent a response is necessary, Hamamatsu denies that Plaintiff is entitled to any
14 relief whatsoever, including without limitation the relief requested in the Complaint.

15 ***

16 **HAMAMATSU'S AFFIRMATIVE DEFENSES**

17 1. Hamamatsu asserts the following affirmative defenses. Hamamatsu's inclusion of
18 these affirmative defenses in this Answer is not a concession that Hamamatsu bears the burden of
19 proof with respect to any of the defenses. Discovery is ongoing as of the time of this Answer and
20 thus Hamamatsu has not fully received, collected, and/or reviewed all of the information that may
21 be relevant to the matters and issues raised herein. Accordingly, Hamamatsu reserves the right to
22 amend, modify, and/or expand these defenses, and to take further positions as discovery proceeds
23 in this case.
24

25 **FIRST AFFIRMATIVE DEFENSE**
26 **(Failure to State a Claim)**

27 2. Plaintiff's Complaint fails to state a claim upon which relief can be granted.
28

1 **SECOND AFFIRMATIVE DEFENSE**
2 **(Invalidity)**

3 3. The asserted claims of the '982 patent are each invalid for failure to meet the
4 requirements set forth in 35 U.S.C. §§ 101, 102, 103, 112, 116, and/or 256.

5 **THIRD AFFIRMATIVE DEFENSE**
6 **(Non-Infringement)**

7 4. Hamamatsu does not directly infringe, indirectly infringe, contribute to
8 infringement, or induce infringement of any valid or enforceable claim of the '982 patent, either
9 literally or under the doctrine of equivalents, willfully or otherwise.

10 **FOURTH AFFIRMATIVE DEFENSE**
11 **(Limitation of Damages or Costs)**

12 5. Plaintiff's claims for relief are barred in whole or in part, including without
13 limitation, by 35 U.S.C. §§ 286, 287, and/or 288. By failing to satisfy the requirements of 35
14 U.S.C. § 287, Plaintiff is not entitled to damages arising before the filing of this case. Any claim
15 for damages is otherwise limited by 35 U.S.C. § 286. Plaintiff is barred under 35 U.S.C. § 288
16 from receiving any costs associated with this case.

17 **FIFTH AFFIRMATIVE DEFENSE**
18 **(Inequitable Conduct)**

19 6. Upon information and belief, the '982 patent is unenforceable due to inequitable
20 conduct. There are two bases for this defense.

21 7. First, upon information and belief, during the prosecution of the '982 patent, the
22 named inventors withheld prior art that they knew to be material to the patentability of the pending
23 claims, with the specific intent to deceive the United States Patent & Trademark Office
24 ("USPTO") into issuing those claims.

25 8. Upon information and belief, the named inventors intentionally withheld an IEEE
26 article titled *DC-Coupled Laser Induced Detection System for Fault Localization in*
27 *Microelectronic Failure Analysis* ("Quah") from the USPTO during prosecution. The authors of
28

1 the Quah paper are named inventors of the '982 patent, and they were thus aware of the paper. At
2 least two of the inventors attended the 2006 IPFA conference where the Quah paper was presented
3 and distributed to conference attendees, and thus they were aware of the paper's public
4 accessibility during the conference. *See* IPR2017-02110, Ex. 2011 (Oct. 24, 2017 Declaration of
5 Alfred CT Quah); IPR2017-02112, Ex. 2011 (same).

6
7 9. According to the face of the '982 patent, the earliest effective filing date of the
8 patent is November 5, 2007. The 2006 IPFA conference was held on July 3-7, 2006, more than
9 one year before the earliest effective filing date of the '982 patent. The Quah paper was thus
10 publicly accessible more than one year before the earliest effective filing date of the '982 patent
11 and therefore qualifies as a prior art "printed publication" under 35 U.S.C. § 102(b).

12
13 10. The Quah paper is material to the patentability of the '982 patent because it
14 anticipates at least claim 1 of the patent. In particular, the paper discloses the sole limitation that
15 the inventors relied on to distinguish the prior art during prosecution: the concept of accumulating
16 a plurality of samples of a response signal, as opposed to accumulating only a single sample. In
17 the *inter partes* review ("IPR") proceedings against the '982 patent (IPR2017-02110, IPR2017-
18 02112), Plaintiff did not dispute this disclosure of the Quah paper. Accordingly, the reference is
19 material to the patentability of at least claim 1 of the '982 patent.

20
21 11. Upon information and belief, the named inventors withheld the Quah paper from
22 the USPTO in order to secure allowance of the '982 patent, at the same time they were arguing
23 that the pending claims were different from the prior art because of the "plurality of samples"
24 limitation. But for the named inventors' withholding of the Quah paper, the USPTO would have
25 known the named inventors' statements distinguishing the prior art were false, and the '982 patent
26 would not have issued.

1 12. Intent for purposes of inequitable conduct can be established with circumstantial
2 evidence. Here, the evidence shows that the named inventors were knowledgeable about material
3 prior art and its public accessibility during the July 2006 IPFA conference. Despite this
4 knowledge, and with an intent to deceive the USPTO during prosecution of the 982 patent, the
5 named inventors failed to disclose this material prior art to the USPTO during prosecution.
6

7 13. These acts violate the named inventors' duty of candor to the USPTO and render
8 the '982 patent unenforceable due to inequitable conduct.

9 14. Second, upon information and belief, during the *inter partes* review ("IPR")
10 proceedings against the '982 patent, Plaintiff, its counsel, and one or more of the named inventors
11 withheld information that they knew to be material to the patentability of the challenged claims,
12 with the specific intent to deceive the USPTO Patent Trial & Appeal Board ("PTAB") into
13 denying Hamamatsu's challenges to those claims.
14

15 15. A key issue during the IPR proceedings was whether the Quah paper discussed in ¶
16 10 of this affirmative defense was publicly accessible during the 2006 IPFA conference, in which
17 case it would have qualified as a prior art "printed publication" under 35 U.S.C. § 102(b). *See*
18 IPR2017-02110, Final Written Decision at 34-43 (Mar. 18, 2019); IPR2017-02112, Final Written
19 Decision at 33-41 (Mar. 18, 2019). In the IPR proceedings, Plaintiff alleged that Hamamatsu had
20 not established public accessibility of the Quah paper as of the 2006 IPFA conference. *See id.*
21 Plaintiff further alleged that the earliest date of public accessibility for the Quah paper was
22 November 30, 2006.
23

24 16. As a patent owner in an IPR proceeding, Plaintiff owed a duty of candor and good
25 faith to the PTAB. *See* 37 C.F.R. § 42.11(a). This duty required Plaintiff to disclose all relevant
26 information that is inconsistent with any position it advanced during the proceedings. *See* 37
27 C.F.R. 42.51. Upon information and belief, Plaintiff violated this duty by withholding information
28

1 inconsistent with its allegations that (1) Hamamatsu had not established public accessibility of the
2 Quah paper at the 2006 IPFA conference, and (2) the earliest date of public accessibility for the
3 Quah paper was November 30, 2006.

4 17. In particular, Plaintiff failed to disclose to the PTAB material information known
5 by two of the named inventors who attended the 2006 IPFA conference. These named inventors
6 knew that the Quah paper was presented and distributed to attendees during the conference. *See*
7 IPR2017-02110, Ex. 2011 (Oct. 24, 2017 Declaration of Alfred CT Quah); IPR2017-02112, Ex.
8 2011 (same). Thus, they had information that directly contradicted Plaintiff's allegations
9 concerning public accessibility of the paper. Plaintiff, however, failed to disclose to the PTAB
10 this information known to the named inventors. Notably, Plaintiff submitted a declaration from
11 the lead author of the paper, Mr. Quah, who is undoubtedly knowledgeable about whether and
12 how his paper was distributed at the conference, but the declaration is silent about how and to
13 whom the paper was distributed.

14 18. The Quah paper is material to the patentability of the '982 patent for the reasons
15 discussed in ¶¶ 10-11 of this affirmative defense. But for Plaintiff and the inventors' failure to
16 disclose this information about public accessibility, the PTAB would have known that Plaintiff's
17 representations concerning this issue were false, and would have invalidated one or more claims of
18 the '982 patent based on the disclosure of the Quah paper.

19 19. As discussed in ¶ 12 of this affirmative defense, intent for purposes of inequitable
20 conduct can be established with circumstantial evidence. Here, the evidence shows that Plaintiff,
21 its counsel, and one or more of the named inventors were knowledgeable about material prior art
22 and its public accessibility during the 2006 IPFA conference. Despite this knowledge, and with an
23 intent to deceive the PTAB during IPR proceedings against the '982 patent, Plaintiff, its counsel,
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1 and one or more of the named inventors failed to disclose this material information to the PTAB
2 during those proceedings.

3 20. These acts violate the duty of candor owed to the PTAB during IPR proceedings.
4 *See Ohio Willow Wood Co. v. Alps So., LLC*, 735 F.3d 1333, 1344-45 (Fed. Cir. 2013) (finding
5 that inequitable conduct may arise during post-grant review proceedings); *Depomed, Inc. v.*
6 *Purdue Pharma L.P.*, No. CV 13-571 (D.N.J. Jun. 28, 2017) (same).

7
8 **SIXTH AFFIRMATIVE DEFENSE**
9 **(Equitable Estoppel)**

10 21. On information and belief, Plaintiff's claims against Hamamatsu are barred by the
11 doctrine of equitable estoppel.

12 22. Hamamatsu has reasonably relied on Plaintiff's misleading actions in forming a
13 reasonable belief that Hamamatsu does not infringe the '982 patent, and Plaintiff is equitably
14 estopped from bringing this case against Hamamatsu.

15 23. On or around May 27, 2014, Defendant Hamamatsu Corporation received a letter
16 from Plaintiff alleging infringement of the '982 patent. Defendant Hamamatsu Photonics K.K.
17 received a copy of the letter from Hamamatsu Corporation on May 30, 2014. Hamamatsu
18 Photonics K.K. then sent an acknowledgement letter to Plaintiff on June 3, 2014, notifying
19 Plaintiff that Hamamatsu Photonics K.K. was responsible for the matter, was conducting an
20 internal review of Plaintiff's patent infringement allegations, and would respond to the allegations
21 when its internal review was completed. On June 19, 2014, Hamamatsu sent a letter to Plaintiff
22 responding to Plaintiff's May 27, 2014 letter and explaining why Hamamatsu does not infringe the
23 '982 patent.

24
25 24. On July 12, 2014, Hamamatsu received a letter from Plaintiff responding to
26 Hamamatsu's June 19, 2014 letter and reiterating Hamamatsu's alleged infringement of the '982
27 patent. On July 24, 2014, Hamamatsu sent a letter to Plaintiff responding to Plaintiff's July 12,
28

1 2014 letter and further explaining why Hamamatsu does not infringe the '982 patent. On
2 September 5, 2014, Hamamatsu received a letter from Plaintiff responding to Hamamatsu's July
3 24, 2014 letter. On September 25, 2014, Hamamatsu sent a letter to Plaintiff responding to
4 Plaintiff's September 5, 2014 letter and explaining why Plaintiff's infringement allegations for the
5 '982 patent also render it invalid. Hamamatsu's letter further explained that its response was
6 based on comments from its U.S. patent counsel.

7
8 25. On October 21, 2016—more than two years after receiving Hamamatsu's
9 September 25, 2014 letter—Plaintiff sent a letter to Hamamatsu responding to Hamamatsu's
10 September 25, 2014 letter. Hamamatsu did not receive any communication or otherwise hear from
11 Plaintiff in any form with respect to the '982 patent between September 25, 2014 and October 21,
12 2016. In its October 21, 2016 letter, Plaintiff disputed the non-infringement and invalidity
13 positions that Hamamatsu provided in its July 24, 2014 and September 25, 2014 letters. On
14 November 30, 2016, Hamamatsu sent a letter to Plaintiff responding to Plaintiff's October 21,
15 2016 letter and pointing out the inaccuracies in Plaintiff's letter. Hamamatsu also explained that it
16 was surprised to receive Plaintiff's October 21, 2016 letter because Hamamatsu had fully
17 addressed Plaintiff's allegations via its July 24, 2014 and September 25, 2014 letters, and
18 Hamamatsu had not heard from Plaintiff for over two years.

19
20 26. Plaintiff's threat of purportedly lawful enforcement of the '982 patent against
21 Hamamatsu, followed by its two-plus years of silence and inaction, led Hamamatsu to reasonably
22 believe that it did not infringe the '982 patent and that Plaintiff would not bring a case alleging
23 infringement of the '982 patent. Plaintiff's conduct constitutes misleading silence. Hamamatsu
24 relied on Plaintiff's misleading silence to continue its lawful business operations, including
25 continuing to research, develop, design, import, market, and sell the Accused Products.
26
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1 Hamamatsu is severely prejudiced by Plaintiff bringing this case after over two years of
2 misleading silence.

3 27. Accordingly, Plaintiff is barred from recovery under the doctrine of equitable
4 estoppel.

5
6 **SEVENTH AFFIRMATIVE DEFENSE**
(Unenforceability)

7 28. On information and belief, the '982 patent is unenforceable against Hamamatsu
8 under the equitable doctrines of estoppel, waiver, implied waiver, unclean hands, or other
9 equitable doctrines.

10
11 **EIGHTH AFFIRMATIVE DEFENSE**
(License and/or Patent Exhaustion)

12 29. On information and belief, Plaintiff's claims against Hamamatsu are barred as a
13 result of patent exhaustion and/or because Hamamatsu is licensed, expressly or implied, under the
14 '982 patent.

15
16 **NINTH AFFIRMATIVE DEFENSE**
(Waiver)

17 30. On information and belief, Plaintiff's claims against Hamamatsu are barred by the
18 doctrine of waiver.

19
20 **TENTH AFFIRMATIVE DEFENSE**
(Prosecution History Estoppel)

21 31. On information and belief, due to admissions and statements made to the USPTO
22 during the prosecution of the application that resulted in the '982 patent or related patent
23 applications, as well as to the PTAB during the IPR proceedings against the '982 patent, Plaintiff
24 is estopped from construing a valid and enforceable claim, if any, of the '982 patent as infringed
25 literally or under the doctrine of equivalents by Hamamatsu's Accused Products.
26
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**ELEVENTH AFFIRMATIVE DEFENSE
(No Injunctive Relief)**

32. Plaintiff's remedies at law are adequate, and its alleged injury is not immediate or irreparable, such that equitable relief would be inappropriate for any determined infringement of the '982 patent.

**TWELFTH AFFIRMATIVE DEFENSE
(Other Defenses)**

33. Hamamatsu reserves the right to amend its Answer to include other additional defenses that Hamamatsu may learn of during the course of this case.

HAMAMATSU'S PRAYER FOR RELIEF

WHEREFORE, Hamamatsu prays that:

- A. Plaintiff take nothing by way of its Complaint and the same be dismissed with prejudice;
- B. All damages, costs, expenses, attorneys' fees, or other relief sought by Plaintiff be denied;
- C. Judgment be entered that Hamamatsu has not infringed, contributed to the infringement of, or induced others to infringe, either directly or indirectly, any valid or enforceable claims of the '982 patent, willfully or otherwise;
- D. Judgment be entered that each asserted claim of the '982 patent is invalid and/or unenforceable;
- E. The Court award Hamamatsu its attorneys' fees and costs incurred in responding to the Complaint and defending itself in this case; and
- F. The Court grant Hamamatsu such other and further relief as the Court deems just and proper.

DEMAND FOR JURY TRIAL

In accordance with Federal Rule of Civil Procedure 38(b), Defendant Hamamatsu demands a trial by jury on all issues so triable.

DATED: September 6, 2019

Respectfully submitted,

QUINN EMANUEL URQUHART &
SULLIVAN, LLP

By /s/ David Eiseman

David Eiseman

Attorneys for Defendants
HAMAMATSU CORPORATION,
HAMAMATSU PHOTONICS, K.K., and
PHOTONICS MANAGEMENT
CORPORATION

CERTIFICATE OF SERVICE

I, David Eiseman, certify that pursuant to Local Rule 5-5, counsel of record who have consented to electronic service are being served on September 6, 2019 with copies of the attached document(s) via the Court's CM/ECF system, which will send notification of such filing to counsel of record.

DATED: September 6, 2019

Respectfully submitted,

QUINN EMANUEL URQUHART &
SULLIVAN, LLP

By /s/ David Eiseman